ATTACHMENT J2

Columbus AFB Natural Gas Distribution System

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J2 Columbus AFB Natural Gas Distribution System

J2.1 Columbus AFB Overview

J2.1.1 Description

Columbus Air Force Base is located in the Black Plains area in northeast Mississippi, approximately nine miles north of downtown Columbus, Mississippi. The City of Columbus is approximately ten miles from the Alabama state line on U.S. Highways 45 and 82 in an essentially rural setting. The almost unrestricted air space surrounding Columbus AFB is almost as valuable to the Air Force as the land itself and is particularly desirable for the student pilot training in the associated aircraft military operating areas.

J2.1.2 Installation Profile

Columbus AFB has three on-base runways and one runway at the auxiliary field at Shuqualak. The base is located on 4,903 acres including easements and right-of-way for runway approach and the drainage ways off-base. Over 218 assigned aircraft and 14 cockpit simulators are used for training the Undergraduate Pilots.

Columbus AFB was established through the efforts of local citizens in an attempt to secure defense industries as well as support the national response to world geopolitical activity. On June 26, 1941, the War Department approved an Army Air Field for the Columbus, MS area. The Department of Agriculture transferred 750 acres to the Army in August 1941 and the federal government leased 3,579 acres from the City of Columbus and Lowndes County, MS. The original mission of the installation was to serve as a twin engine advanced flying school. The onset of WW II expedited activity at the base with the first training beginning on February 9, 1942. Initially named for a local WW I war hero, the installation name was changed to Columbus Army Flying School in April 1942. Over 7000 pilots were trained at the school during WW II.

The installation was deactivated for approximately five years until world events again required a U.S. military build up. In March 1951 the base, renamed Columbus Air Force Base, was reopened. It provided both primary and basic flight training under the supervision of the USAF Air Training Command. In April 1955 the base became part of the Strategic Air Command (SAC) Second Air Force and the 4228th Air Base Squadron was organized. As part of SAC's base dispersal program new and modernized facilities were added to the installation inventory. The leased property was purchased by the federal government in September 1956. In December 1957, Columbus AFB was designated the home base for a B-52 squadron and a KC-135 jet refueling squadron. The first KC-135 of the 901st Air Refueling Squadron arrived on January 7, 1959 and the first B-52 landed on May 28, 1959.

Columbus AFB was returned to the Air Training Command on July 1, 1969 and resumed the mission of training pilots under the command of the 3650th Pilot Training Wing. The current host unit, the 14th Flying Training Wing was activated at the base on June 1, 1972.

As of 1998, there were 901 active duty personnel and 626 military dependents living on base, with 497 active duty and 471 military dependents living off base. There were 1,318 civilian employees. Military retirees in the area number 3,444. There are 171 facilities on the installation and currently 577 military family housing units. 232 military family housing units were recently demolished and are currently being replaced with 120 new duplex single and two story units, funded and under construction. 100 more military family housing units are scheduled for construction as funding is authorized.

J2.1.3 Mission

The mission statement of the 14th Flying Training Wing is: "To defend the United States of America by training the world's best pilots and warriors". The wing vision is to maintain the world's premier pilot training environment. The Wing Goals are to provide gaining commands top-quality pilots and combat-ready warriors, enhance quality of life, protect and improve equipment and facilities, and embrace the "BLAZE" values of building leaders, advancing integrity, service before self, and excellence in all they do.

The Columbus AFB Specialized Undergraduate Pilot Training (SUPT) syllabus includes a 52-week intensive training program to earn the prestigious silver wings. Students learn visual flight rules, instrument navigation and formation flying through classroom training, full motion and visual system flight simulators and the use of operational trainer aircraft, such as the T-37 "Tweet," the T-38 "Talon," and the T-1 "Jayhawk." Some graduates continue training in the AT-38B aircraft, learning Introduction to Fighter Fundamentals.

Columbus AFB expects to receive the Joint Primary Aircraft Training System aircraft-the T-6A Texan II. The T-6A will replace the Air Force's T-37 and Navy's T-34 as the joint primary trainer. The new aircraft will be used to train entry-level aviation students into one of four training tracks: the Air Force's bomber/fighter track; the Air Force's airlift/tanker or Navy's maritime track; the Navy's strike track; or the Air Force helicopter track.

J2.2 Natural Gas Distribution System Description

J2.2.1 Natural Gas Fixed Equipment Inventory

The Columbus AFB Natural Gas Distribution System consists of all appurtenances physically connected to the distribution system from the point in which the distribution system enters the base to the point of demarcation defined by the real estate instruments (Exhibit B). The system may include, but is not limited to, pipelines, valves, regulators, and meters. The following description and inventory is included to

provide the Contractor a general understanding of the size and configuration of the distribution system. The Government makes no representation that the inventory is accurate. The Contractor shall base its proposal on site inspections, information in the technical library, other pertinent information, and to a lesser degree the following description and inventory. Under no circumstances shall the Contractor be entitled to any rate adjustments based on the accuracy of the following description and inventory.

Specifically excluded from the natural gas distribution system privatization are: None

J2.2.1.1 Description

Mississippi Valley Natural Gas Company supplies natural gas to the base. A single six inch (6") pipeline provides natural gas service to the base at a pressure of 60 psig. A pressure reducing station lowers the incoming gas pressure to 20 psig for distribution. The pressure reducing station and the Mississippi Valley Natural Gas (MVNG) meter are in a separately fenced in area inside the base fence line. Adjacent to the MVNG area is a base owned gas meter and check valve assembly in another fenced in area. Both of the fenced areas have padlocked gates with restricted access.

The natural gas is distributed on base through underground lines. All of the underground lines are polyethylene and have a wire tracer alongside. The locations of all of the underground lines are shown on high-quality record drawings. Average depth of burial is 2.5 feet to 3 feet. By using the drawings and the tracer wires the Utilities Shop personnel are always able to easily locate the underground lines. Since the underground lines are polyethylene and relatively new underground leakage is not a problem. The benefit of being able to accurately locate the underground gas lines is displayed when the Utilities Shop is asked to issue a "Dig Permit" to a contractor. By having the gas lines accurately located before digging the contractor is able to avoid hitting and breaking the lines with the excavation equipment.

Natural gas is metered at over 90% of base buildings. For example one family housing area of 175 single and duplex units will have one meter on the gas main feeding this area. There are three such military family housing areas on Columbus AFB. Other large use buildings such as the commissary and clinic are metered.

The gas system on Columbus AFB is relatively new. Natural gas heating replaced the last of the electric strip heaters and oil burning boilers in 1997. The Utilities Shop, which is responsible for the natural gas system exterior to the buildings, has had no major repairs to the system and only small leaks in the hard metal pipe joints above ground. No major repair work is anticipated in the near future.

The rough-order-of-magnitude estimate of the amount of the natural gas system in the Military Housing Area compared to the entire installation is 43%.

J2.2.1.2 Inventory

Table 1 provides a general listing of the major Natural Gas Distribution System fixed assets for the Columbus AFB Natural Gas Distribution System included in the sale.

TABLE 1
Fixed Inventory
Natural Gas Distribution System Columbus AFB

Component Description	Size	Quantity	Unit of Measure	Material Type	Approximate Year Installed
Valves, brass, gas cocks	3/4"	800	EA	Brass	1996
Valves, brass, gas cocks	1-1/4"	45	EA	Brass	1996
Valves	2"	64	EA	PE	1996
Valves	3"	8	EA	PE	1996
Valves	4"	9	EA	PE	1996
Valves	3”	1	EA	PE	2001
Valves	3”	1	EA	PE	2002
Valves	1-1/2”	3	EA	Brass	2000
Valves, brass, gas cocks	3/4"	202	EA	Brass	2002
Gas service piping	3/4"	174,768	LF	PE	1996
Gas service piping	1-1/4"	14,784	LF	PE	1996
Gas service piping	2"	12,144	LF	PE	1996
Gas service piping	2"	7,920	LF	PE	1996
Gas service piping	3"	5,280	LF	PE	1996
Gas service piping	3"	9,504	LF	PE	1996
Gas service piping	4"	16,368	LF	PE	1996
Gas service piping	1”	200	LF	PE	1996
Gas service piping	1-1/2”	350	LF	PE	2000
Gas service piping	3”	300	LF	PE	2001
Gas service piping	2”	300	LF	PE	2002
Gas service piping	2	100	LF	PE	2001
Gas service piping	3/4"	20200	LF	PE	2002
Pressure regulators	3/4"	800	EA		1996
Pressure regulators	2"	56	EA		1996
Pressure regulators	4"	2	EA		1996
Pressure regulators	1”	1	EA		1996
Pressure regulators	1-1/2”	3	EA		2000
Pressure regulators	1-1/2”	1	EA		2002
Pressure regulators	2”	2	EA		2001
Pressure regulators	2”	1	EA		2002
Pressure regulators	3/4"	202	EA		2002

Component Description	Size	Quantity	Unit of Measure	Material Type	Approximate Year Installed
Gas meter, residential	1-1/4”	6	EA		1996
Gas meter, commercial , 475 scfh	1-1/4”	19	EA		1996
Gas meter, commercial, 1200 scfh	2”	26	EA		1996
Gas meter, commercial, 1200 scfh	2"	1	EA		2002
Gas meter, commercial, 1785 scfh	2"	8	EA		1996
Gas meter, commercial, 3175 scfh	2"	4	EA		1996
Gas meter, commercial, 8470 scfh	4"	2	EA		1996
Gas meter, commercial, 1600 scfh	2”	1	EA		2001
Gas meter, commercial, 3175 scfh	2”	1	EA		2001

Legend:

EA – Each LF - Linear Feet PE – Polyethylene
scfh = cubic feet per hour at standard conditions

J2.2.2 Natural Gas Distribution System Non-Fixed Equipment and Specialized Tools

Table 2 lists other ancillary other equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment and tools prior to submitting his bid. Offerors shall make his own determination of the adequacy of all equipment, vehicles, and tools.

TABLE 2
Spare Parts
Natural Gas Distribution System Columbus AFB

Qty	Item	Make/Model	Description	Remarks
None				

TABLE 3
Specialized Vehicles and Tools
Natural Gas Distribution System Columbus AFB

Description	Quantity	Location	Maker
None			

J2.2.3 Natural Gas Distribution System Manuals, Drawings, and Records

Table 4 lists the manuals, drawings, and records that will be transferred with the system.

TABLE 4
Manuals and Records
Natural Gas Distribution System Columbus AFB

Qty	Item	Description	Remarks
1	CD	UTILITY SYSTEM DRAWINGS	AUTOCAD REL 2002
1	MANUALS, TESTS, RECORDS		MADE AVAILABLE FOR REFERENCE IN BASE TECH LIBRARY

J2.3 Specific Service Requirements

The service requirements and standards for the Columbus AFB natural gas distribution system are as defined in the Section C, *Description/Specifications/Work Statement*. The following standards are specific to the Columbus AFB natural gas distribution system and are in addition to those found in Section C. If there is a conflict between standards described below and Section C, the standards listed below take precedence over those found in Section C.

1. As to digging permits, the Contractor will be required to mark his own utilities and will be responsible for initiating, officiating, and tracking digging permits for his own utilities. IAW Mississippi Code of 1972 Section 77-13-5 and -11, the Contractor will provide not less than five (5) and not more that ten (10) working days notice of any needed excavations to Mississippi One Call System and to said Utilities Privatization Administrative Contracting Officer so the location of underground utilities may be located and marked by applicable utility owner.

J2.4 Current Service Arrangement

Mississippi Valley Natural Gas Company supplies natural gas to the base. A single six inch (6”) pipeline provides natural gas service to the base at a pressure of 60 psig. A pressure reducing station lowers the incoming gas pressure to 20 psig for distribution. The pressure reducing station and the Mississippi Valley Natural Gas (MVNG) meter is in a separately fenced in area inside the base fence line. Adjacent to the MVNG area is a base owned gas meter and check valve assembly in another fenced in area.

Records for natural gas usage were available for 2002.

Average Annual Usage	104,600.5 Mcf
Monthly Average Usage	8,716.7 Mcf
Daily Average Usage	286.6 Mcf
High Month – January 2002	19,038.0 Mcf
Low Month – July 2002	1,543.0 Mcf
Average Flow Rate	13,338 cubic feet per hour

J2.5 Secondary Metering

J2.5.1 Existing Secondary Meters

Table 5 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings once a month for all secondary meters IAW Paragraph C.3 and J2.6 below.

TABLE 5
Existing Secondary Meters
Natural Gas Distribution System Columbus AFB

Utility System	Facility ID	Facility Name/Description	Utility System	Facility ID	Facility Name/Description
Gas	Master	Base Natural Gas meter station	Gas	636	MA Admin
Gas	158	Base Supply	Gas	640	Maintenance Contractor
Gas	160	Base Exchange/Commissary	Gas	642	Maintenance Support
Gas	160	Commissary Desiccant	Gas	704	Athletic Center
Gas	216	49 th FTS	Gas	708	Theater
Gas	218	Engine Repair Shop	Gas	712	Chapel
Gas	220	Engine Test	Gas	715	Library
Gas	230	Student Squadron	Gas	724	Wing HQS
Gas	236A	37 th FTS	Gas	736	Bowling Alley
Gas	236B	50 th FTS	Gas	820	Photo Lab
Gas	246	NDI Lab	Gas	830	Fire Department
Gas	262	AC Corrosion Control	Gas	847	Base Operations
Gas	268	Flight Simulator	Gas	862	Parachute Shop
Gas	327	PMEL	Gas	878	Child Care
Gas	335	Skill Development Ctr.	Gas	900	Comm Center
Gas	338	Auto Hobby Shop	Gas	916	Education Office
Gas	348	Youth Center	Gas	926	Personnel Center
Gas	385	Civil Engineering	Gas	932	Data Automation
Gas	440	Hangar	Gas	944	Officers Club
Gas	450A	Hangar	Gas	954	Quarters VIP Bldg.
Gas	450B	Hangar	Gas	955	TLF
Gas	452A	Hangar	Gas	956	Quarters
Gas	452B	Hangar	Gas	956	Corps of Engineers
Gas	454	Hangar	Gas	958	Quarters

Utility System	Facility ID	Facility Name/Description	Utility System	Facility ID	Facility Name/Description
Gas	456A	Hangar	Gas	964	Quarters
Gas	456B	Hangar	Gas	966	Quarters
Gas	510	Community Center	Gas	1004	Dental Clinic
Gas	530	Post Office	Gas	1030	Walker Center
Gas	973	Officers Quarters	Gas	1046	RAPCON
Gas	406	Corrosion Control	Gas	1100	Hospital
Gas	414	Bead Blast Facility	Gas	1114	Family Support Center
Gas	544	Dormitory	Gas	1944	SAC Alert
Gas	630	Avionics Repair	Gas		Car Wash
Gas	634	MA Admin Support	Gas	995	Hangar

J2.5.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 6.** New secondary meters shall be installed IAW Paragraph C.13, Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Paragraphs C.3 and J2.6 below.

TABLE 6
New Secondary Meters
Natural Gas Distribution System Columbus AFB

Meter Location	Meter Description
NONE	

J2.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. Invoice (IAW G.2). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25th of each month for the previous month. Invoices shall be submitted to:

Name:	Utility COTR	Utility Contract Administrator
Address:	14 CES/CEOC	14 CONS/LGC
	555 Simler Blvd	555 Seventh St, Bldg 724
	Columbus AFB, MS 39710	Columbus AFB, MS 39710
Phone number:	662-434-7403	

2. Outage Report. The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to:

Name:	Utility COTR	Utility Contract Administrator
Address:	14 CES/CEOC	14 CONS/LGC
	555 Simler Blvd	555 Seventh St, Bldg 724
	Columbus AFB, MS 39710	Columbus AFB, MS 39710
Phone number:	662-434-7403	

3. Meter Reading Report. The monthly meter reading report shall show the current and previous month readings for all secondary meters. The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15th of each month for the previous month. Meter reading reports shall be submitted to:

Name:	Utility COTR	Utility Contract Administrator
Address:	14 CES/CEOC	14 CONS/LGC
	555 Simler Blvd	555 Seventh St, Bldg 724
	Columbus AFB, MS 39710	Columbus AFB, MS 39710
Phone number:	662-434-7403	

4. System Efficiency Report. If required by Paragraph C.3, the Contractor shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25th of each month for the previous month. System efficiency reports shall be submitted to:

Name:	Utility COTR	Utility Contract Administrator
Address:	14 CES/CEOC	14 CONS/LGC
	555 Simler Blvd	555 Seventh St, Bldg 724
	Columbus AFB, MS 39710	Columbus AFB, MS 39710
Phone number:	662-434-7403	

J2.7 Energy Saving Projects

IAW C.3, Requirement, the following projects have been implemented by the Government for energy conservation purposes.

1. Portable Natural gas engine-driven water chillers – 2 ea –65 tons ; for emergency use and as a dedicated redundancy until permanent chiller can be repaired/replaced; available for 12 facilities

2. Hangars 450, 452, 454, and 456 – Heating system conversion from forced air furnaces to infrared heating (manufacturer - Roberts/Gordon)

J2.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Columbus AFB boundaries.

J2.9 Off-Installation Sites

No off-installation sites are included in the sale of the Columbus AFB Natural Gas Distribution System.

J2.10 Specific Transition Requirements

IAW Paragraph C.13, Transition Plan, **Table 7** lists service connections and disconnections required upon transfer.

TABLE 7
Service Connections and Disconnections
Natural Gas Distribution System Columbus AFB

Location	Description
NONE	

J2.11 Government Recognized System Deficiencies

Table 8 provides a listing of system improvements that the Government has planned. The Government recognizes these improvement projects as representing current deficiencies associated with the Columbus AFB natural gas distribution system. If the system is sold, the Government will not accomplish these planned improvements. The Contractor shall make a determination as to the actual need to accomplish and the timing of any and all such planned improvements. Capital upgrade projects shall be proposed through the Capital Upgrades and Renewal and Replacement Plan process and will be recovered through Schedule L-3. Renewal and Replacement projects will be recovered through Sub-CLIN AB.

TABLE 8
System Improvement Projects
Natural Gas Distribution System Columbus AFB

Project Location	Project Description
NONE	

A base wide natural gas meter calibration service project is being investigated and may be implemented by 1 June 2003. However, when awarded, the UP contractor will

assume all requirements for natural gas meter calibration service. Additionally an annual natural gas leak survey is in place and active. However, when awarded, the UP contractor will assume all requirements for annual natural gas leak surveys.